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TIV, BACKHEAN				
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**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

### Office Action Summary

**Application No.**

10/699,439

**Applicant(s)**

POPEK ET AL.

**Examiner**

BACKHEAN TIV

**Art Unit**

2451

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on RCE 7/9/09.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1,2,4-16,18-24,26-35,37-49 and 51-58 is/are pending in the application.
- 4a) Of the above claim(s) 3,17,25,36,50 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1,2,4-16,18-24,26-35,37-49 and 51-58 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Final Drawing Review (PTO-849)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

***Detailed Action***

Claims 1,2, 4-16,18-24, 26-35, 37-49, 51-58 are pending in this application. Claims 3,17,25,36,50 have been cancelled. This is a response to the

RCE/Amendments/Remarks filed on 7/9/09.

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1,2,4,31,32,37,45,46,51 are rejected under 35 U.S.C. 103(a) as being unpatentable over US Publication 2004/0068579 issued to Marmigere et al.(Marmigere) in view of US Patent 2002/0124100 issued to Adams.

As per claims 1,31,45, Marmigere teaches a method for increasing the throughput of network communications performed by a network access provider server, the method comprising: the network access provider server establishing a connection with a client computer(para.0037, Fig.4) the network access provider server receiving a request for a requested object from a requester(para.0037, Fig.4), wherein the requester is a web browser on the client computer the network access provider server forwarding the request to a server the network access provider server receiving a response from the server(Abstract, para.0037), the network access provider server reviewing the response to determine whether the response includes a native expiration when the response does not include the native expiration(Fig.9, para.0047,0049), the

network access provider server forwarding the amended response to the requester, wherein the amended response includes the requested object storing the amended response the network access provider server providing the amended response to other requesters at other client computers that request the requested object, the providing achieved without additional communication with the server(Fig.9, para.0047,0049).

Marmigere does not explicitly teach the network access provider server computing a computed expiration for the response the network access provider server inserting the computed expiration into the response creating an amended response.

Adams explicitly teaches calculating an expiration and modifying headers to include the expiration, (para.0235).

Therefore it would have been obvious to one ordinary skill in the art at the time of the invention to modify the teachings of Marmigere to include calculating expiration for a response as taught by Adams in order to enhance the speed of delivery of web content to users(Adams, Abstract).

One ordinary skill in the art would have been motivated to combine the teachings of Marmigere and Adams in order to enhance the speed of delivery of web content to users(Adams, Abstract).

As per claims 2, 32, 46 wherein the server comprises an origin server(Marmigere, Fig.9, para.0047, 0049, Adams, para.0233-00235). Motivation to combine set forth above.

As per claims 4,37,51 wherein, when the response includes the native expiration, the network access provider forwarding the response to the requester(Marmigere, Fig.9, para.0047, 0049, Adams, para.0233-00235). Motivation to combine set forth above.

Claims 5,7-9,33-35,38,47-49,52 are rejected under 35 U.S.C. 103(a) as being unpatentable over US Publication 2004/0068579 issued to Marmigere et al.(Marmigere) in view of US Patent 2002/0124100 issued to Adams in further view of US Patent 5,768,515 issued to Choquier et al.(Choquier).

Marmigere in view of Adams teaches wherein the computed expiration is based on a response resource identifier(Adams, para.0235), however does not teach as per claims 5,38,52, a content type .

Choquier teaches a content type(col.8, lines 43-45).

Therefore it would have been obvious to one ordinary skill in the art at the time of the invention to modify the teachings of Marmigere in view of Adams to include content type as taught by Choquier in order to determine what objects are being requested.

One ordinary skill in the art would have been motivated to combine the teachings of Marmigere, Adams, and Choquier in order to determine what objects are being requested.

As per claims 7,33,47, further comprising: evaluating whether a content type of the response is appropriate; performing the reviewing only when the content type of the response is appropriate(Adams, para.0235, Choquier, col.8, lines 43-45). Motivation to combine set forth in claim 5,38,52.

As per claims 8,34,48, wherein the evaluating whether a content type of the response is appropriate comprises checking to determine whether the content type is in an appropriate type list(Adams, para.0235, Choquier, col.8, lines 43-45). Motivation to combine set forth in claim 5,38,52.

As per claims 9,35,49, wherein the appropriate type list comprises at least one of graphic, JavaScript, Cascading Style Sheet, portable document format (PDF), executable program, audio, video, and multimedia(Adams, para.0235, Choquier, col.8, lines 43-45). Motivation to combine set forth in claim 5,38,52.

Claims 6,10-12,39-42,53-56 are rejected under 35 U.S.C. 103(a) as being unpatentable over US Publication 2004/0068579 issued to Marmigere et al.(Marmigere) in view of US Patent 2002/0124100 issued to Adams in further view of US Patent 7,159,014 issued to Kausik et al.(Kausik).

Marmigere in view of Adams does not explicitly teach as per claims 6,39,53, wherein the computed expiration is based on a time-to-live.

Kausik teaches wherein the computed expiration is based on a time-to-live(Kausik, Figs. 2-6, col.5, lines 30-37).

Therefore it would have been obvious to one ordinary skill in the art at the time of the invention to modify the teachings of Marmigere in view of Adams to include time to live as taught by Kausik in order to determine whether to update objects from a web content server.

One ordinary skill in the art would have been motivated to combine the teachings of Kausik, Adams, and Marmigere in order to determine whether to update objects from a web content server.

As per claims 10,40,54, wherein the receiving a request comprises storing request information as request history data(Kausik, col.2, lines 1-2, col.6, lines 1-35).

As per claims 11,41,55, wherein the request information includes a request resource identifier, a request content type, and a modification query when the modification query is present(Kausik, Figs.2-6, col.2, lines 1-2, col.6, lines 1-35).

As per claims 12,42,56, Marmigere teaches when the response does not include the modification history, retrieving a modification query value from the request history data based on a response type and a response location(Figs.2-9; modification query value is interpreted to be action code) when the modification query value is retrieved, computing the time-to-live for the response based on an age factor, a current time and the modification query value, computing the computed expiration based on the current time and the time-to-live when the retrieving the modification query value is not successful, forwarding the response to the requester(para. 0049); Kausik teaches wherein the computing the computed expiration comprises: evaluating whether the response includes a modification history(Figs.2-6, col.2, lines 1-2, col.6, lines 1-35) when the response includes the modification history, computing a time-to-live for the response based on an age factor, a current time and a value of the modification history(Figs.2-6, col.2, lines 1-2, col.6, lines 1-35) computing the computed expiration based on the current time and the time-to-live(Figs.2-6, col.2, lines 1-2, col.6, lines 1-35)

One ordinary skill in the art would have been motivated to combine the teachings of Kausik, Adams and Marmigere in order to determine whether to update objects from a web content server(Marmigere, para.0001).

Claims 13,14,43,44,57,58 are rejected under 35 U.S.C. 103(a) as being unpatentable over US Publication 2004/0068579 issued to Marmigere et al.(Marmigere) in view of US Patent 2002/0124100 issued to Adams in further view of US Patent 7,159,014 issued to Kausik et al.(Kausik) in further view of Office Notice.

Marmigere in view of Adams in further view of Kausik, teaches setting a time limit for objects and , forwarding the response to the requester( Marmigere Figs.2-9, Kausik, col.4, lines 41-62, col.6, lines 18-20), however does not explicitly teach as per claims 13,43,57, when the time-to-live is greater than a defined maximum, setting the time-to-live to be the defined maximum; when the time-to-live is less than a defined minimum

Office Notice is taken; setting TTL to a maximum and minimum is well known to one ordinary skill in the art.

It is obvious to one ordinary skill in the art at the time of the invention to have a defined maximum and defined minimum of time since Marmigere in view of Adams in view of Kausik in order to have defined expiration dates for objects.

One ordinary skill in the art would have been motivated to combine the teachings of Marmigere, Adams, Kausik and setting TTL to a maximum and minimum, order to have defined expiration dates for objects.



As per claims 14,44,58, wherein the request is a hyper-text transfer protocol (HTTP) get, the modification query value is an HTTP if-modified-since value, and the modification history value is an HTTP last-modified value(Kausik, Figs.2-6).

Claims 15, 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over US Publication 2004/0068579 issued to Marmigere et al.(Marmigere) in view US Patent 2002/0124100 issued to Adams in further view of US Patent 7,251,254 issued to Bond et al.(Bond).

As per claim 15, Marmigere teaches a method for increasing the throughput of network communications comprising: receiving a request for a requested object from a requester, wherein the requester is a web browser(Abstract; para.0037) forwarding the request to a server(Abstract; para.0037) receiving a response from the server evaluating whether the response has a status code that is actionable when the status code is actionable(Fig.9, para.0047, 0049), reviewing the response to determine whether the response includes a native expiration(Fig.9, para.0047, 0049), inserting the calculated expiration into the response creating an amended response forwarding the amended response to the requester(Fig.9, para.0047, 0049), wherein the amended response includes the requested object storing the amended response providing the amended response to other requesters that request the requested object, the providing achieved without additional communication with the server when the response includes the native expiration(Fig.9, para.0047, 0049); forwarding the response to the requester(Fig.9).

Marmigere does not explicitly teach when the response does not include the native expiration calculating a calculated expiration for the response; forwarding the response to the requester when the status code is not actionable.

Adams explicitly teaches calculating an expiration and modifying headers to include the expiration, (para.0235).

Therefore it would have been obvious to one ordinary skill in the art at the time of the invention to modify the teachings of Marmigere to include calculating expiration for a response as taught by Adams in order to enhance the speed of delivery of web content to users(Adams, Abstract).

One ordinary skill in the art would have been motivated to combine the teachings of Marmigere and Adams in order to enhance the speed of delivery of web content to users(Adams, Abstract).

Marmigere in view of Adams does not explicitly teach forwarding the response to the requester when the status code is not actionable.

Bond teaches forwarding the response to the requester when the status code is not actionable(col.5, lines 15-64).

Therefore it would have been obvious to one ordinary skill in the art at the time of the invention to modify the teachings of Marmigere in view of Adams to include forwarding the response to the requester when the status code is not actionable as taught by Bond in order to inform a user that certain request can not be carried out, e.g. Forbidden webpages.

One ordinary skill in the art would have been motivated to combine the teachings of Marmigere, Adams, and Bond in order to inform a user that certain request can not be carried out, e.g. Forbidden webpages.

As per claim 16, wherein evaluating whether the response has a status code that is actionable comprises checking to determine whether the response has a hyper-text transfer protocol (HTTP) status code of "OK" or "Not Modified"(Marmigere, para. 0049). Motivation to combine set forth in claim 15.

Claims 18-23 are rejected under 35 U.S.C. 103(a) as being unpatentable over US Publication 2004/0068579 issued to Marmigere et al.(Marmigere) in view of US Patent 2002/0124100 issued to Adams in further view of US Patent 5,768,515 issued to Choquier et al.(Choquier).

As per claim 18, Marmigere teaches a method for increasing the throughput of network communications comprising: receiving a request for a requested object from a requester, wherein the requester is a web browser(Abstract; para.0037) forwarding the request to a server receiving a response from the server reviewing the response to determine whether the response includes a native expiration computing a calculated expiration for the response inserting the calculated expiration into the response creating an amended response forwarding the amended response to the requester requester, wherein the amended response includes the requested object storing the amended response providing the amended response to other requesters that request the requested object, the providing achieved without additional communication with the

server(Fig.9, para.0047,0049) when the response includes the native expiration, forwarding the response to the requester(Fig.9, para.0047, 0049),

Marmigere does not explicitly teach when the response does not include the native expiration; evaluating whether a content type of the response is appropriate; when the content type of the response is appropriate; when the content type of the response is not appropriate, forwarding the response to the requester.

Adams explicitly teaches calculating an expiration and modifying headers to include the expiration, (para.0235).

Therefore it would have been obvious to one ordinary skill in the art at the time of the invention to modify the teachings of Marmigere to include calculating expiration for a response as taught by Adams in order to enhance the speed of delivery of web content to users(Adams, Abstract).

One ordinary skill in the art would have been motivated to combine the teachings of Marmigere and Adams in order to enhance the speed of delivery of web content to users(Adams, Abstract).

Marmigere in view of Adams however does not explicitly teach evaluating whether a content type of the response is appropriate; when the content type of the response is appropriate; when the content type of the response is not appropriate.

Choquier teaches evaluating whether a content type of the response is appropriate; when the content type of the response is appropriate; when the content type of the response is not appropriate (col.8, lines 43-45).

Therefore it would have been obvious to one ordinary skill in the art at the time of the invention to modify the teachings of Marmigere in view of Adams to include evaluating whether a content type of the response is appropriate; when the content type of the response is appropriate; when the content type of the response is not appropriate as taught by Choquier in order to determine what objects are being requested.

One ordinary skill in the art would have been motivated to combine the teachings of Marmigere, Adams, and Choquier in order to determine what objects are being requested.

As per claim 19, wherein the evaluating whether a content type of the response is appropriate comprises checking to determine whether the content type is a graphic image(Adams, para.0235, Fig.1, Choquier, col.8, lines 43-45). Motivation to combine set forth in claim 18.

As per claim 20, wherein the evaluating whether a content type of the response is appropriate comprises checking to determine whether the content type is one of a Graphics Interchange Format (GIF) file or Joint Photographic Experts Group (JPEG) file(Adams, para.0235, Fig.1, Choquier, col.8, lines 43-45). Motivation to combine set forth in claim 18.

As per claims 21, wherein the evaluating whether a content type of the response is appropriate comprises checking to determine whether the content type is in an appropriate type list(Adams, para.0235, Fig.1, Choquier, col.8, lines 43-45). Motivation to combine set forth in claim 18.

As per claims 22, wherein the appropriate type list comprises at least one of graphic, JavaScript, Cascading Style Sheet, portable document format (PDF), executable program, audio, video, and multimedia(Adams, para.0235, Fig.1, Choquier, col.8, lines 43-45). Motivation to combine set forth in claim 18.

As per claims 23, wherein the computed expiration is based on at least one of a response content type and a response resource identifier(Kausik, col.3, lines 58-col.4, lines 15).

Claims 24,26-28 are rejected under 35 U.S.C. 103(a) as being unpatentable over US Publication 2004/0068579 issued to Marmigere et al.(Marmigere) in view of US Patent 2002/0124100 issued to Adams in further view of US Patent 5,768,515 issued to Choquier et al.(Choquier) in further view of US Patent 7,159,014 issued to Kausik et al.(Kausik).

Marmigere in view of Adams in further view of Choquier does not explicitly teach as per claims 24, wherein the computed expiration is based on a time-to-live.

Kausik teaches wherein the computed expiration is based on a time-to-live(Kausik, Figs. 2-6, col.5, lines 30-37).

Therefore it would have been obvious to one ordinary skill in the art at the time of the invention to modify the teachings of Marmigere in view of Adams in further view of Choquier to include time to live as taught by Kausik in order to determine whether to update objects from a web content server.

One ordinary skill in the art would have been motivated to combine the teachings of Kausik, Adams, Choquier and Marmigere in order to determine whether to update objects from a web content server.

As per claims 26, wherein the receiving a request comprises storing request information as request history data(Kausik, col.2, lines 1-2, col.6, lines 1-35).

As per claims 27, wherein the request information includes a request resource identifier, a request content type, and a modification query when the modification query is present(Kausik, Figs.2-6, col.2, lines 1-2, col.6, lines 1-35).

As per claims 28, Marmigere teaches when the response does not include the modification history, retrieving a modification query value from the request history data based on a response type and a response location(Figs.2-9; modification query value is interpreted to be action code) when the modification query value is retrieved, computing the time-to-live for the response based on an age factor, a current time and the modification query value, computing the computed expiration based on the current time and the time-to-live when the retrieving the modification query value is not successful, forwarding the response to the requester(para. 0049); Kausik teaches wherein the computing the computed expiration comprises: evaluating whether the response includes a modification history(Figs.2-6, col.2, lines 1-2, col.6, lines 1-35) when the response includes the modification history, computing a time-to-live for the response based on an age factor, a current time and a value of the modification history(Figs.2-6, col.2, lines 1-2, col.6, lines 1-35) computing the computed expiration based on the current time and the time-to-live(Figs.2-6, col.2, lines 1-2, col.6, lines 1-35)

One ordinary skill in the art would have been motivated to combine the teachings of Kausik, Adams, Choquier, and Marmigere in order to determine whether to update objects from a web content server(Marmigere, para.0001).

Claims 29,30 are rejected under 35 U.S.C. 103(a) as being unpatentable over US Publication 2004/0068579 issued to Marmigere et al.(Marmigere) in view of US Patent 2002/0124100 issued to Adams in further view of US Patent 5,768,515 issued to Choquier et al.(Choquier) in further view of US Patent 7,159,014 issued to Kausik et al.(Kausik) in further view of Office Notice.

Marmigere in view of Adams in further view of Choquier in view of Kausik teaches setting a time limit for objects and , forwarding the response to the requester(Marmigere Figs.2-9, Kausik, col.4, lines 41-62, col.6, lines 18-20), however does not explicitly teach as per claims 29, when the time-to-live is greater than a defined maximum, setting the time-to-live to be the defined maximum; when the time-to-live is less than a defined minimum

Office Notice is taken; setting TTL to a maximum and minimum is well known to one ordinary skill in the art.

It is obvious to one ordinary skill in the art at the time of the invention to have a defined maximum and defined minimum of time since Marmigere in view of Adams in further view of Choquier in view of Kausik in order to have defined expiration dates for objects.



One ordinary skill in the art would have been motivated to combine the teachings of Kausik, Marmigere, Choquier, Adams, and setting TTL to a maximum and minimum, order to have defined expiration dates for objects.

As per claims 30, wherein the request is a hyper-text transfer protocol (HTTP) get, the modification query value is an HTTP if-modified-since value, and the modification history value is an HTTP last-modified value(Kausik, Figs.2-6).

### ***Response to Arguments***

It is recommended by the examiner that the applicant amend the claims from "the network access provider server" to a proxy server.

Applicant's arguments with respect to claims 1,2, 4-16,18-24, 26-35, 37-49, 51-58 have been considered but are moot in view of the new ground(s) of rejection.

### ***Conclusion***

**Examiner's Note:** Examiner has cited particular columns and line numbers in the references as applied to the claims above for the convenience of the applicant. Although the specified citations are representative of the teachings of the art and are applied to the specific limitations within the individual claim, other passages and figures may apply as well. It is respectfully requested from the applicant in preparing responses, to fully consider the references in its entirety as potentially teaching of all or part of the claimed invention.

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. See PTO-892.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Backhean Tiv whose telephone number is (571) 272-5654. The examiner can normally be reached on M-F 6:30-3:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John Follansbee can be reached on (571) 272-3964. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

B. T.  
Backhean Tiv  
Examiner, Art Unit 2451  
9/24/09

/KAMAL B DIVECHA/

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